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RCYAGO PH-W2839

RCYAGO WiFi Tuya pH ORP Temperature Controller Monitor User Manual

Model: PH-W2839 | Brand: RCYAGO

1. Product Overview

The RCYAGO PH-W2839 is a versatile 3-in-1 monitor designed for comprehensive water quality analysis. It accurately measures pH, Oxidation-Reduction Potential (ORP), and temperature, providing real-time data and control capabilities. Equipped with WiFi connectivity, it integrates with the Tuya app for remote monitoring, data logging, and alarm settings, making it ideal for aquariums, aquaculture, and various water management applications.

Figure 1: The RCYAGO WiFi Tuya pH ORP Temperature Controller Monitor, showing the main unit, connected pH, ORP, and temperature probes, and the dual-socket power control strip.

Figure 2: Key features of the 3-in-1 monitor, including accurate measurement, wide application range, and automatic temperature compensation.

2. Package Contents

Please verify that all items are present in your package:

- 1 x WiFi Online pH ORP Temperature Controller Unit
- 1 x pH Electrode
- 1 x ORP Electrode
- 1 x Temperature Probe
- 1 x Dual-Socket Power Control Strip
- Calibration Powders (pH 4.01, pH 6.86/7.0, pH 9.18/10.01, ORP 256mV)
- 1 x Power Adapter
- User Manual

Figure 3: Detailed view of the high-precision ORP electrode, pH electrode, temperature electrode, and the power plug included with the device.

3. Setup and Installation

Follow these steps to set up your pH ORP Temperature Controller:

1. **Mounting the Controller:** Choose a suitable location near your water body (aquarium, tank, etc.) and mount the main controller unit securely. Ensure it is protected from direct splashes.
2. **Connecting Electrodes:** Carefully connect the pH electrode, ORP electrode, and temperature probe to their respective BNC connectors and jack on the main controller unit. Ensure connections are firm.
3. **Connecting Power Control Strip:** Plug the dual-socket power control strip into the designated output port on the main controller. This strip will be used to connect external devices (e.g., CO2 solenoid valve, heater) that you wish to control based on pH or ORP levels.
4. **Probe Placement:** Submerge the pH electrode, ORP electrode, and temperature probe into the water you intend to monitor. Ensure the sensing parts of the electrodes are fully immersed and positioned to get accurate readings, away from strong currents or air bubbles.
5. **Power Connection:** Plug the main controller's power adapter into a standard electrical outlet. The device will power on.
6. **WiFi Connection (Tuya App):**
    - Download the "Tuya Smart" or "Smart Life" app from your mobile device's app store (iOS or Android).
    - Register or log in to your account.
    - Follow the in-app instructions to add a new device. The controller should enter pairing mode automatically or by pressing the WiFi button.
    - Connect the device to your 2.4GHz WiFi network.

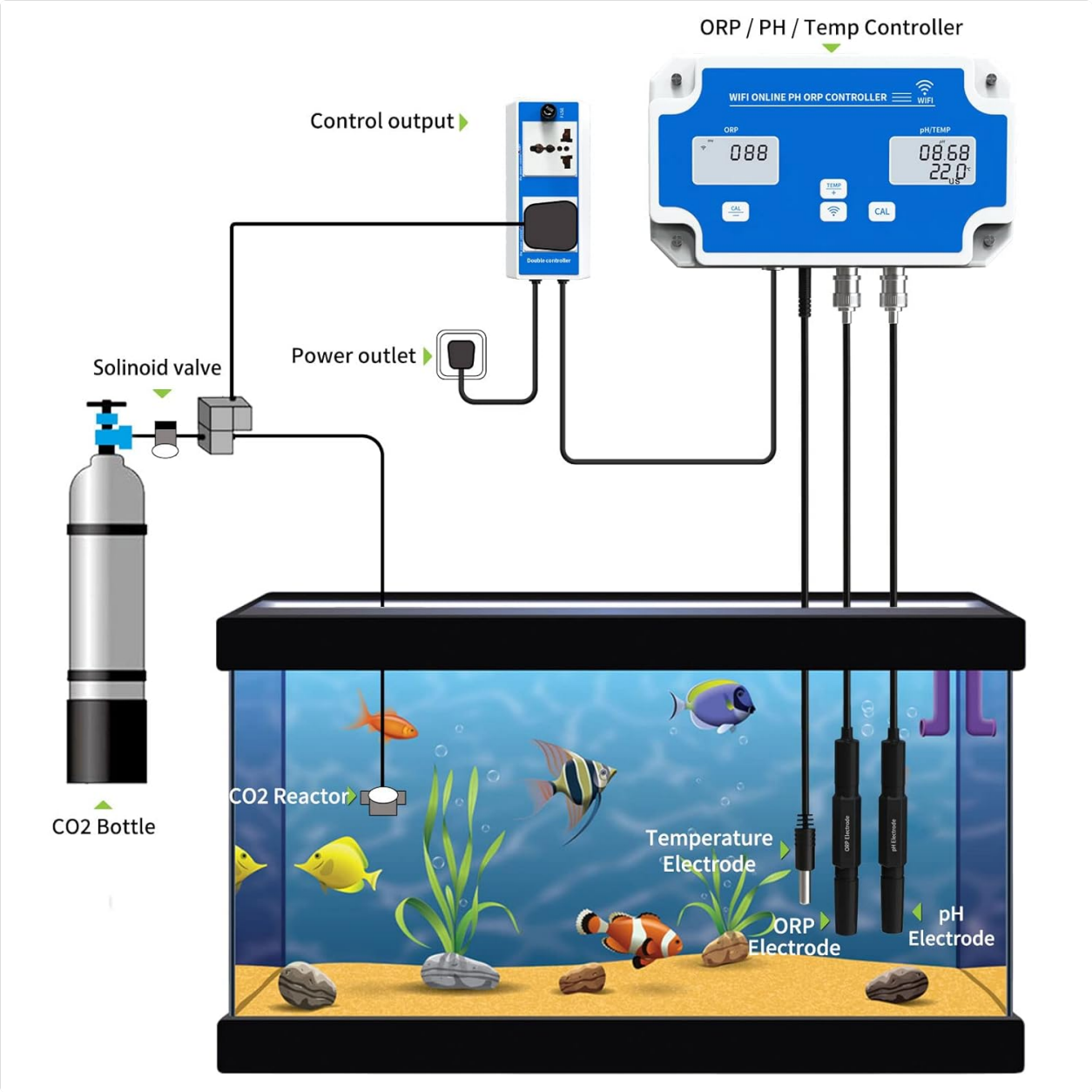


Figure 4: A typical setup diagram showing the controller connected to a CO2 system and probes immersed in an aquarium.

Figure 5: The controller in operation, demonstrating WiFi connectivity and real-time data transfer to a mobile application.

4. Calibration

Regular calibration ensures the accuracy of your pH and ORP readings. It is recommended to calibrate the device upon initial setup and periodically thereafter.

4.1. pH Calibration

The device supports 3-point pH calibration (pH 7.0, pH 4.01, pH 10.01).

1. Prepare fresh pH buffer solutions (pH 7.0, pH 4.01, pH 10.01).
2. Rinse the pH electrode with distilled water and gently blot dry.
3. Immerse the pH electrode into the pH 7.0 buffer solution.
4. Press the 'CAL' button under the pH display on the controller. The device will automatically recognize the buffer and calibrate. Wait for the reading to stabilize.
5. Rinse the electrode again.
6. Repeat the process for pH 4.01 and pH 10.01 buffer solutions. Ensure to calibrate in ascending or

descending order as per device prompts.

4.2. ORP Calibration

The device supports ORP calibration using a 256mV standard solution.

1. Prepare a fresh 256mV ORP standard solution.
2. Rinse the ORP electrode with distilled water and gently blot dry.
3. Immerse the ORP electrode into the 256mV standard solution.
4. Press the 'CAL' button under the ORP display on the controller. The device will automatically recognize the standard and calibrate. Wait for the reading to stabilize.

Figure 6: Visual guide for the 3-point pH calibration and ORP calibration process using standard buffer solutions.

5. Operating Instructions

5.1. Real-time Monitoring

Once powered on and probes are immersed, the controller's LCD screen will display real-time pH, ORP, and temperature readings. The WiFi indicator will show connection status.

5.2. Tuya App Functionality

The Tuya app provides advanced monitoring and control features:

- **Real-time Data:** View current pH, ORP, and temperature readings remotely.
- **Historical Data:** Access daily, weekly, and monthly data logs for trend analysis.
- **Alarm Settings:** Set high and low alarm thresholds for pH and ORP. Receive notifications on your mobile device if values exceed or fall below these thresholds.
- **Smart Scene Creation:** Create automated rules (smart scenes) within the Tuya app to control connected devices via the power strip. For example, turn on a CO2 solenoid when pH rises above a certain level.

Figure 7: The controller's display and the Tuya app interface, demonstrating real-time monitoring and alarm settings.

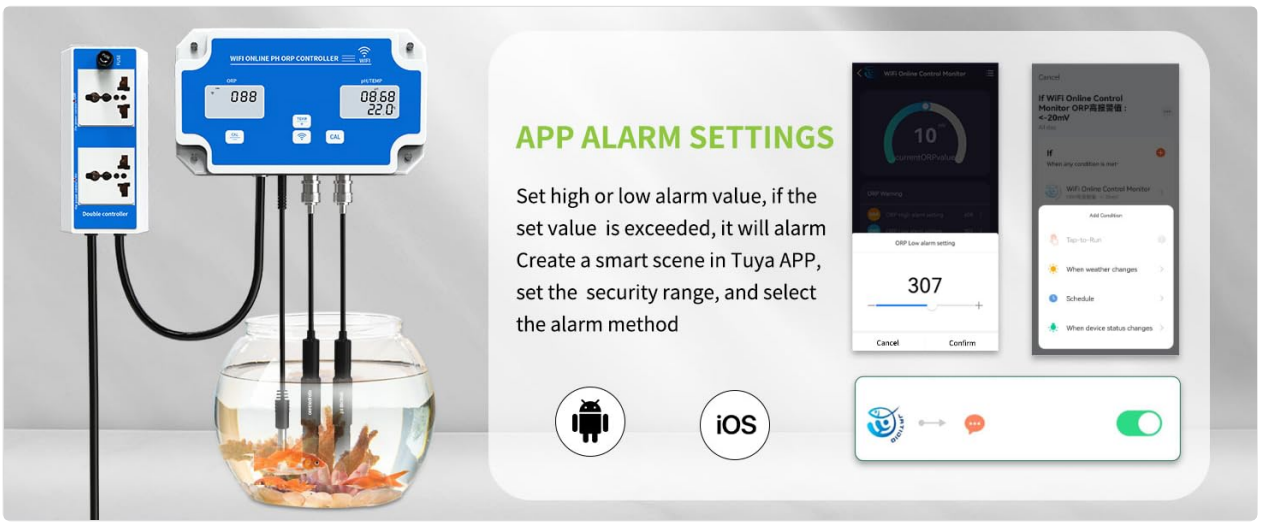


Figure 8: Illustration of the app's alarm setting capabilities, allowing users to define thresholds and trigger actions.

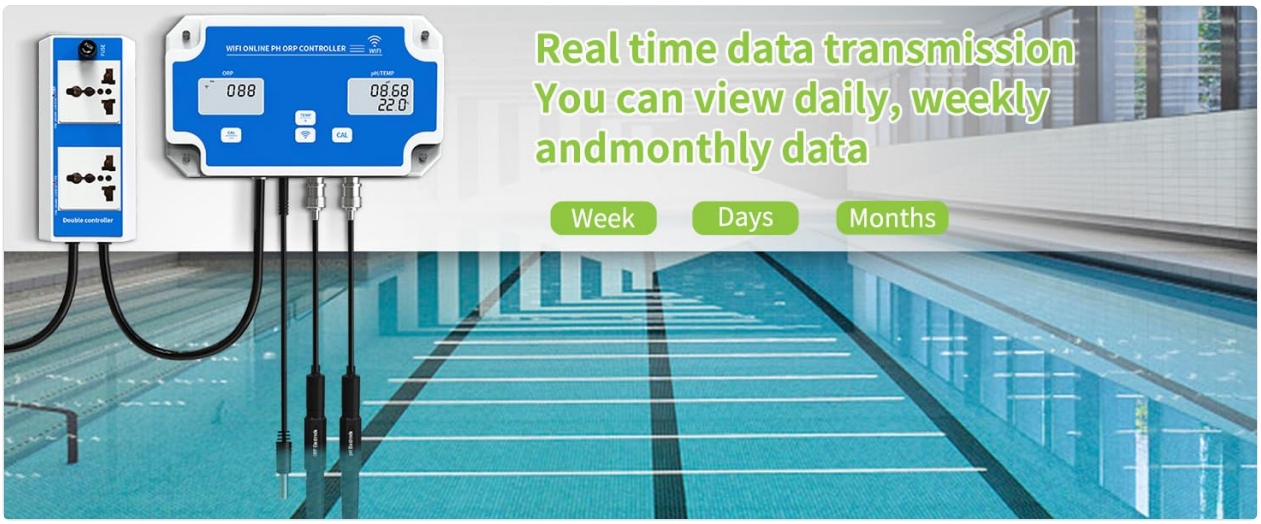


Figure 9: The device provides real-time data transmission, allowing users to view historical data trends over various periods.

6. Maintenance

Proper maintenance extends the lifespan and ensures the accuracy of your electrodes and controller.

- **Electrode Cleaning:** Regularly clean the pH and ORP electrodes with distilled water to remove any buildup or contaminants. For stubborn deposits, use a mild cleaning solution specifically designed for electrodes, following the manufacturer's instructions.
- **Electrode Storage:** When not in use, store the pH and ORP electrodes in their protective caps filled with a suitable storage solution (e.g., KCL solution or pH 4 buffer). Never store electrodes dry.
- **Recalibration:** Calibrate the pH and ORP electrodes regularly, especially if you notice inconsistent readings or after cleaning. The frequency depends on usage and water conditions.
- **Controller Unit:** Keep the main controller unit clean and dry. Avoid exposing it to extreme temperatures or direct sunlight.

7. Troubleshooting

If you encounter issues with your device, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Inaccurate pH/ORP readings	Electrodes are dirty or aged; improper calibration; air bubbles on electrode.	Clean electrodes thoroughly; recalibrate the device; gently tap electrodes to dislodge bubbles. Replace electrodes if they are old or damaged.
WiFi connection failure	Incorrect WiFi password; device too far from router; 5GHz WiFi network used; router issues.	Ensure correct 2.4GHz WiFi password; move device closer to router; verify router is broadcasting 2.4GHz; restart router and device.
Relay output not triggering	Incorrect alarm settings in Tuya app; device not connected to power strip; external device malfunction.	Check and adjust pH/ORP alarm thresholds and smart scene rules in the app; ensure the external device is properly plugged into the control strip and functioning independently.

Problem	Possible Cause	Solution
Temperature reading incorrect	Temperature probe not fully immersed or damaged.	Ensure the temperature probe is fully submerged; inspect the probe for physical damage.

8. Specifications

Detailed technical specifications for the RCYAGO PH-W2839 monitor:

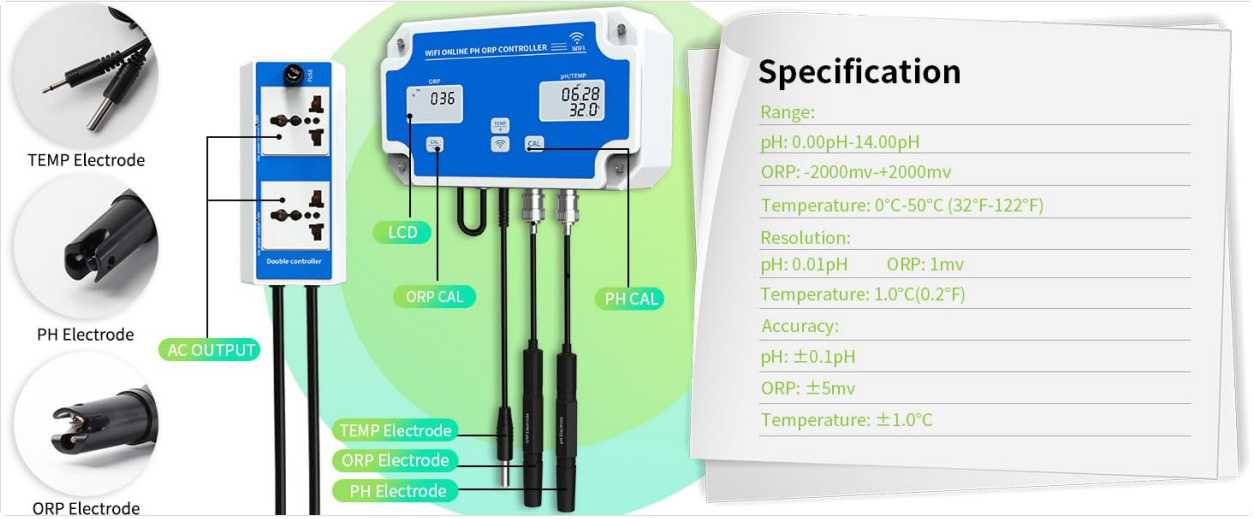


Figure 10: Overview of the device's measurement ranges, resolutions, and accuracy.

Parameter	Range	Resolution	Accuracy
pH	0.00pH - 14.00pH	0.01pH	±0.1pH
ORP	-2000mV - +2000mV	1mV	±5mV
Temperature	0°C - 50°C (32°F - 122°F)	1.0°C (0.2°F)	±1.0°C

- **Power Supply:** AC 110-240V, 50/60Hz (Specific adapter details may vary)
- **WiFi Standard:** 2.4GHz 802.11b/g/n
- **Dimensions:** Approximately 11.1 x 8.11 x 2.99 inches (Controller unit)
- **Weight:** Approximately 2.34 Pounds

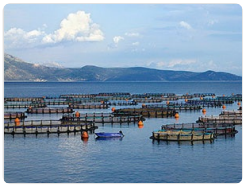
9. Applications

The RCYAGO WiFi Tuya pH ORP Temperature Controller Monitor is suitable for a wide range of water quality monitoring applications, including but not limited to:

- Aquariums (Freshwater and Seawater)
- Aquaculture and Fish Tanks
- Hydroponics and Plant Cultivation
- Swimming Pools and Spas
- Domestic Water Quality Testing
- Laboratory Research and Testing

Figure 11: The versatility of the monitor across different water quality monitoring scenarios.

Aquariums



Aquaculture

Swimming Pools

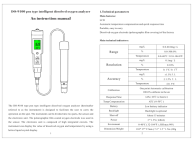
Laboratories

10. Warranty and Support

This product comes with a standard manufacturer's warranty. For specific warranty terms, duration, and to register your product, please refer to the warranty card included in your package or visit the official RCYAGO website.

For technical support, troubleshooting assistance, or any inquiries regarding your RCYAGO WiFi Tuya pH ORP Temperature Controller Monitor, please contact RCYAGO customer service through the contact information provided on their official website or in your product documentation.

Related Documents

	DO-9100 Pen Type Intelligent Dissolved Oxygen Analyzer Instruction Manual This document provides instructions for the DO-9100 pen type intelligent dissolved oxygen analyzer, covering its features, technical parameters, operation, maintenance, and troubleshooting.
	RCYAGO SGW07 Dual Water Timer User Manual Comprehensive user manual for the RCYAGO SGW07 Dual Water Timer. Learn about product overview, specifications, installation, automatic watering programs, manual watering, rain delay, troubleshooting, and battery status for your garden irrigation system.